W.R. GRACE (ACTON PLANT) SUPERFUND SITE,

ACTON & CONCORD, MASSACHUSETTS

COMMUNITY UPDATE **OCTOBER 2007**

GROUNDWATER AND SEDIMENT PRE-DESIGN FIELD ACTIVITIES UNDERWAY

Operation History

The W.R. Grace Superfund site located off Independence Road in South Acton has been used for industrial purposes since the 1800s. After purchasing the property in 1954, W.R. Grace & Co. (Grace) conducted a number of manufacturing operations producing a variety of latex and rubber-based products as well as cellulose battery separators. Many of the waste products from these operations were disposed of on-site. In 1980, all on-site waste disposal operations at the facility ceased. In early 1982, Grace discontinued its organic chemical operations at the South Acton site. These operations were the primary source of many of the wastes generated at the site.

Acton Water District (AWD)

The Acton Water District continues to operate and maintain air strippers to remove any volatile organic compounds present in groundwater pumped from the Assabet 1, Assabet 2, and the School Street wellfield (Christofferson, Lawsbrook, and Scribner wells). Low concentrations of several VOCs have been detected in untreated raw water samples from these wells prior to treatment. The Acton Water District routinely samples and treats the water they provide to users to ensure that Safe Drinking Water Act requirements are met.

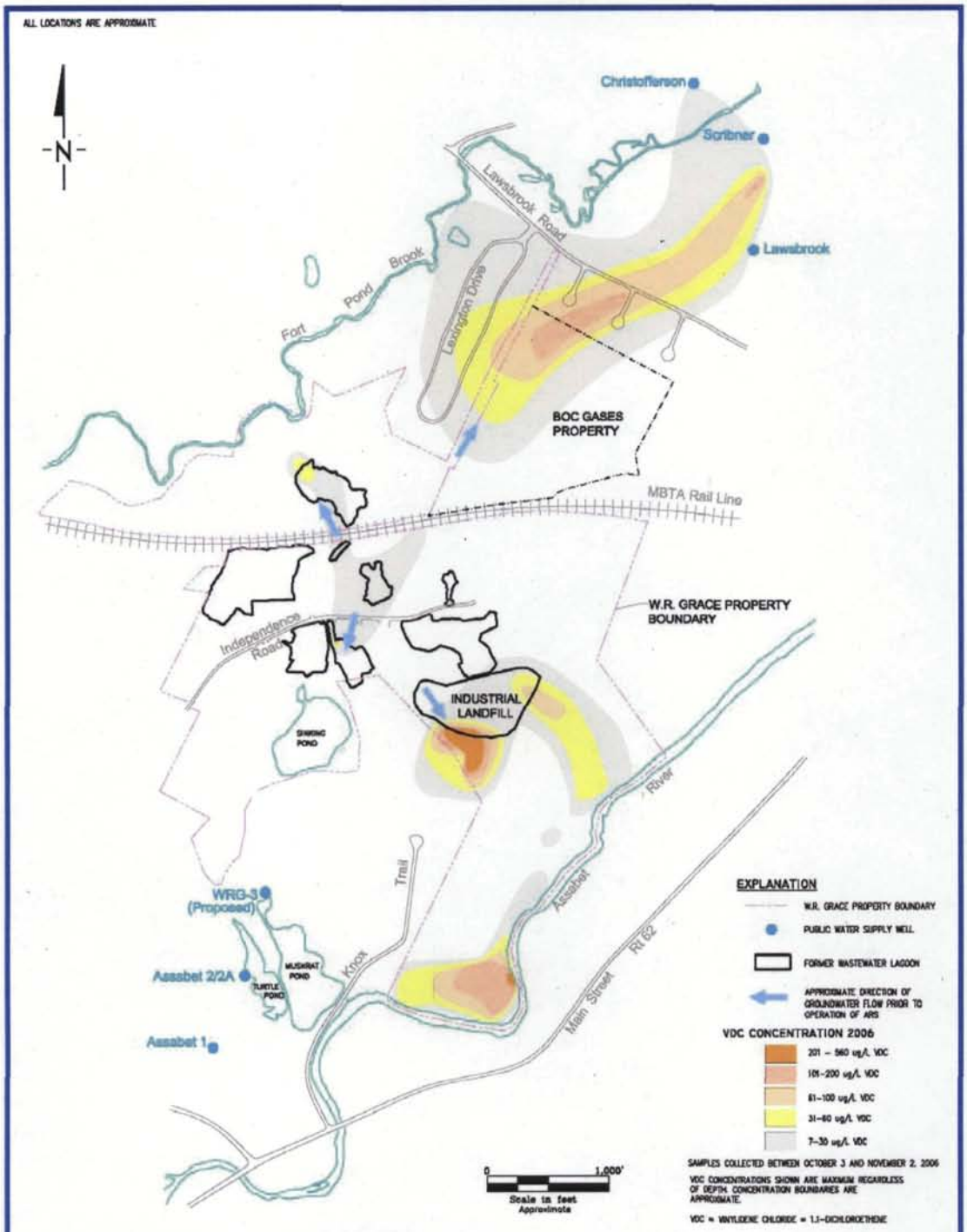


Figure 1 - Distribution of VDC in Groundwater, 2006

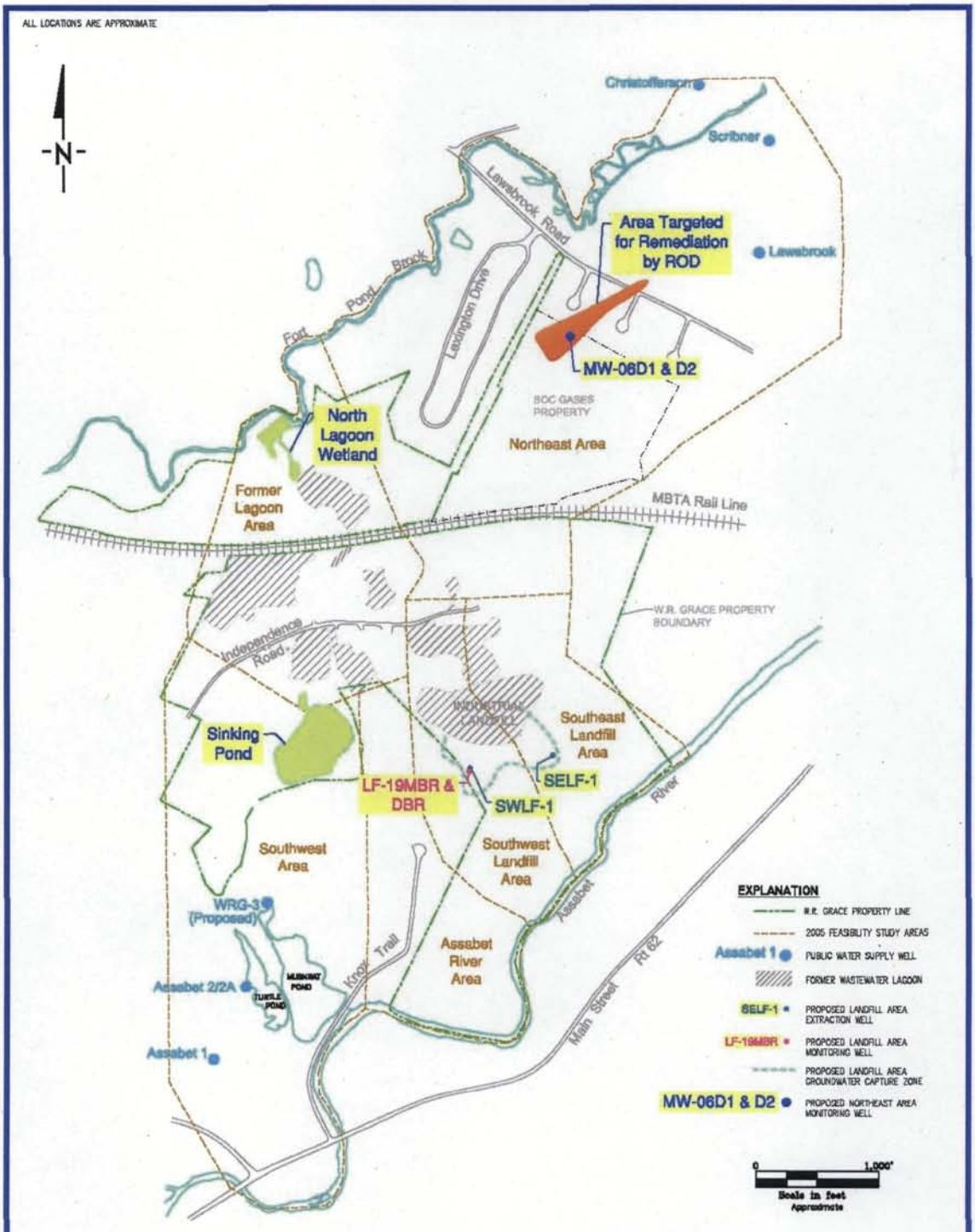


Figure 2 Site Activities Planned for 2007/2008

Current Extent of Groundwater Contamination

The current extent of contaminated groundwater at the Site has been defined. Figure 1 depicts concentrations of vinylidene chloride (VDC or 1,1-dichloroethene), which is the most widespread contaminant at the site. This figure shows the maximum VDC concentrations regardless of depth, detected during the fall of 2006.

Upcoming 2007/2008 Site Activities

The Draft Sediment, Northeast Area Groundwater and Landfill Area Groundwater Pre-Design Work Plans have been reviewed and approved by the Environmental Protection Agency (EPA) and the Massachusetts Department of Environmental Protection (MassDEP). These Work Plans include detailed descriptions of activities that will be undertaken during the investigations for the engineering design of the Sediment, Northeast Area Groundwater and Landfill Area Groundwater Remedial Actions, respectively. The following summarizes the Pre-Design activities.

Sediment

- Obtained additional sediment samples from Sinking Pond and the North Lagoon Wetland (see Figure 2) to better define contamination;
- Characterized existing ecological habitats and wetlands area characteristics near Sinking Pond and the North Lagoon Wetland to develop appropriate post-remediation wetland restoration plans.

Photos: Sinking Pond (left) and North Lagoon Wetlands (right)

Schedule

The Sediment Pre-Design field-work was completed between April and August 2007 and the analytical data is currently being validated. Once validated, the data will be used to define the area(s) requiring cleanup and to support the engineering design of the remedy.

Northeast Area Groundwater

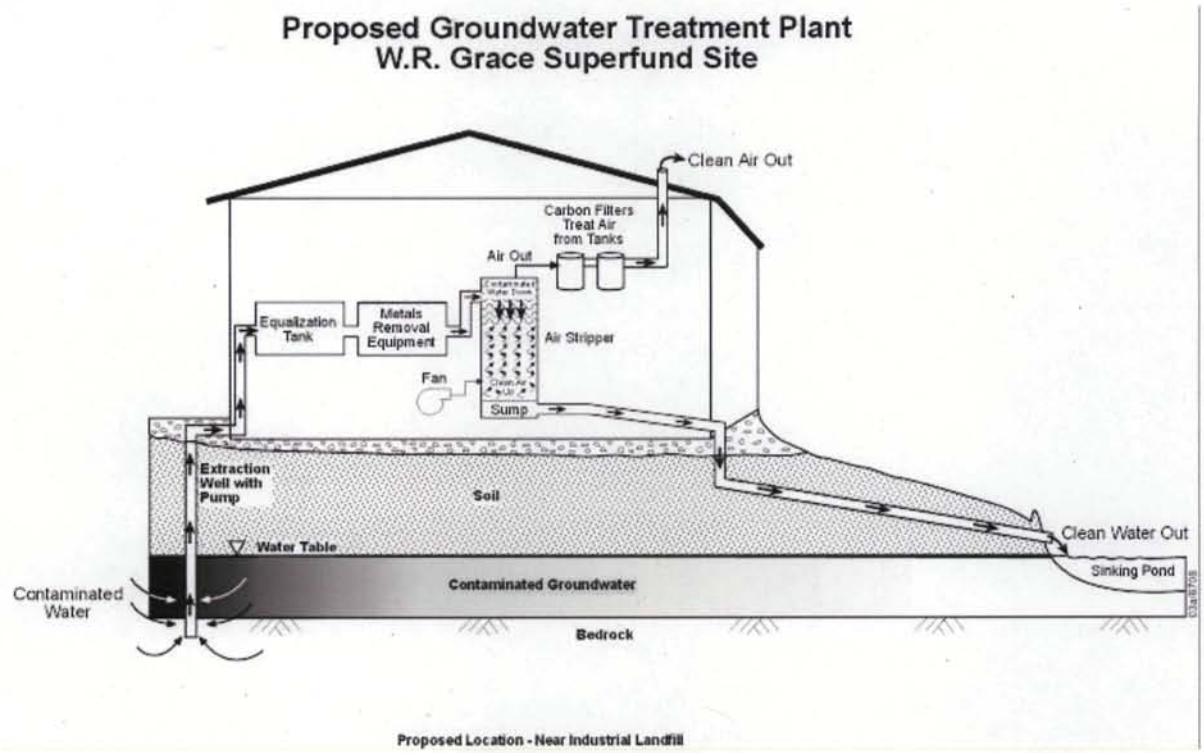
- Evaluate groundwater extraction pumping rates to minimize negative impacts to the Acton Water District's School Street Wells;
- Determine locations of buildings, property boundaries and underground utilities that may impact the remedial design;
- Install and sample two till, (80-90) foot groundwater monitoring wells in the Northeast Area (denoted as MW 06D1 & D2 on Figure 2). These wells will provide data necessary to design and locate conventional groundwater extraction wells; and
- Perform additional groundwater modeling to assist with the design of the remedial action.

Schedule

Based on the current schedule, we anticipate that the Northeast Area Groundwater Pre-Design data will be collected and evaluated between October 2007 and April 2008. This work is being conducted entirely on privately owned property (BOC Gases). Obtaining signed access agreements may impact the overall field schedule.

Landfill Area

- Install two bedrock monitoring wells southwest of the Industrial Landfill (denoted as LF-19MBR and LF-19DBR on Figure 2);
- Install two groundwater extraction wells downgradient of the Industrial Landfill, see Figure 2 (denoted as SELF-1 and SWLF-1);
- Conduct pumping test on planned groundwater extraction system to evaluate the potential yield (gallons per minute) and water quality;
- Evaluate the actual capture zone of the planned groundwater extraction system;
- Conduct testing with groundwater from the planned extraction system to ensure the treatment system will meet safe and protective surface water discharge limits; and
- This information will be used to design the metals removal system to address contamination such as arsenic, iron and manganese. Based on these test results, an on-site pilot test of the metals removal system may also be conducted.



Schedule

It is anticipated that the Landfill Area Groundwater Pre-Design data will be collected and evaluated between October 2007 and June 2008.

Completed and Ongoing Cleanup Actions

In 1978, groundwater contamination was detected in two Acton municipal supply wells, Assabet 1 and 2, located southwest of the Grace property. This discovery prompted a series of investigations that culminated in the installation of the Aquifer Restoration System (ARS) by Grace in late 1984. The ARS is currently a network of seven groundwater extraction wells designed to contain and clean-up contaminated groundwater, and it remains in operation. To date the ARS has extracted and treated over 4.1 billion gallons of contaminated groundwater and removed over 6,100 pounds of total volatile organic compounds (VOCs). The EPA and MassDEP entered into a Consent Decree and a Consent Order, respectively, with Grace in 1980, requiring the cleanup of this site.

In 1983, this site was included on the Superfund National Priorities List (NPL). From 1994 through 1997, W.R. Grace completed the excavation, treatment, and containment of over 173,000 cubic yards of contaminated soil and sludge from each of the former waste water lagoons. Grace met the soil cleanup goals for each of the former wastewater lagoons. (see Figure 1)

Record of Decision and Statement of Work

On September 30, 2005, EPA, with concurrence from the MassDEP, selected and documented the third and final clean up plans for the Site in a Record of Decision (ROD). The ROD addresses contaminated groundwater, sediment and soil that pose a potential unacceptable risk to human health and/or the environment. The ROD includes the following:

- Cleanup of contaminated sediment and soil posing an unacceptable risk to human health and/or the environment in both Sinking Pond and the North Lagoon Wetlands (see Figure 2).

- Targeted extraction, treatment and discharge of groundwater from the Northeast Area (see Figure 2).

- Extraction, treatment, and discharge of contaminated groundwater from the Southeast and Southwest Landfill Areas (see Figure 2).

- Construction of a new, approximately 200 gallon per minute groundwater extraction, treatment and discharge system. Potential treatment processes for the extracted groundwater will include air stripping (for removal of VOCs), activated carbon (air emissions and odor treatment), and inorganics (arsenic, iron and manganese) removal. After treatment, the effluent (treated water), approximately 150 gallons per minute, will be discharged to Sinking Pond.

- Monitored natural attenuation (MNA) in areas of groundwater contamination that will not be captured by the extraction system. MNA relies on monitoring natural processes to cleanup contamination.

- Legal restrictions known formally as Institutional Controls, which may include deed restrictions and/or local ordinances to prevent unacceptable

exposures to contaminated groundwater until cleanup levels are met or to protect against unacceptable future exposures to any wastes, left covered/capped on-Site.

- Long-term monitoring of groundwater, surface water, sediment and air as well as performing five-year reviews of the cleanup actions.

More details can be found in the ROD, which is available on-line at EPA's website: http://www.epa.gov/region01/superfund/sites/graceacton/237033.pdf

Following issuance of the ROD, EPA and MassDEP negotiated a Statement of Work (SOW) which requires Grace to implement the final clean up actions included in the ROD. The SOW, which was finalized in August 2006, outlines the framework for this cleanup and includes schedules; engineering designs and construction requirements Grace will need to fulfill in order to complete the final clean up actions at the site.

More specific details can be found in the SOW, which is available on-line at EPA's website: http://www.epa.gov/region1/superfund/sites/graceacton/256924.pdf

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For further information:

EPA technical information and reports about the W.R. Grace site are available for public review at the Acton Public Library; 486 Main Street, Acton, MA

A detailed Site history can be found at EPA's W.R. Grace Superfund site web site:
www.epa.gov/superfund/grace